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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/620,318

07/14/2003

Paul V. Cooper

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07/25/2007

SQUIRE SANDERS & DEMPSEY LLP

TWO RENAISSANCE SQUARE, 40 NORTH CENTRAL AVENUE

SUITE 2700

PHOENIX, AZ 85004-4498

EXAMINER

KASTLER, SCOTT R

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

07/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/620,318	Applicant(s) COOPER, PAUL V.	
	Examiner Scott Kastler	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 14-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 16-20 of copending Application No.

10/773,105 in view of the admitted prior art of the instant disclosure. Claims 16-20 of the '105 application disclose a coupling including a non-threaded end made of steel showing all aspects of the above claims except the use of a counterweight or internal gas passage or the specifically recited bore shape. The admitted prior art of the instant disclosure, at paragraph [0053] for example, teaches that such features were known to be employed in couplings for use in rotary degassers in order to improve performance. Because improved performance would also be desirable in the coupling of the '105 application, motivation to include a counterweight and gas passage would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the bore shape, since no new or unexpected results have yet

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been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of the '105 application to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 17, 19, 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Mordue'467. Mordue'467 teaches a rotary degasser including a coupling (44) with proximal (54) and distal (56) ends where the distal end is tapered and not threaded, including a bore therethrough which is smooth and could be employed for transferring gas, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification

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obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04

IV B.

Claims 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ecklesdafer'652. Ecklesdafer'652 teaches a coupling (3) with proximal and distal ends where the distal end is tapered and not threaded, including a bore therethrough which is smooth and could be employed for transferring gas, since that manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself (see MPEP 2114) thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winberg et al. teaches a coupling (C) with proximal (76) and distal (32) ends where the distal end is tapered and not threaded, where the proximal end is threaded, including a bore therethrough which is smooth and could be employed for transferring gas, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other

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equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Mars et al or Sparling. Each of Mars et al and Sparling teaches a coupling (30 in Mars et al, figures 1-6 of Sparling) with proximal and distal ends where the distal end is tapered and not threaded, including a bore therethrough which is smooth and could be employed for transferring gas, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14, 17, 19, 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mordue et al'247. Mordue et al'247 teaches a rotary degasser (1 in Figures 1 and 2) including a coupling (21) with a proximal and non-threaded, tapered distal end with a smooth bore therein which can allow gas transfer, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape

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would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14, 17, 19, 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper'074. teaches a rotary degasser (10) including a coupling (38) with a proximal (44) and non-threaded, tapered distal (42) end with a smooth bore therein which can allow gas transfer, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 15, 16, 18, 20, 23, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Either of Mordue et al'247 or Cooper'074 as applied to claims 14 and 21 above, in view of Howie et al and the admitted prior art of the instant disclosure. As applied above, each of Mordue'247 and Cooper'074 show couplings and rotary degassers showing all aspects of the above claims except the specific use of a "course" threaded proximal end, stainless steel as the coupling material, or the inclusion of a counterweight on the coupling, although each of Mordue et al'247 and Cooper'074 allow for the use of any desired material for the coupling construction and allow for the use of a threaded proximal end. Howie et al teaches that at the time the invention was made, it was known in the art to both employ a coupling device (65, 63)

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for the connection of shaft components in a rotary molten metal device, which includes a tapered, non-threaded end (65) and a threaded end (63) where the threads may be considered “course”, as well as constructing the components from stainless steel (see col. 5 lines 10-40 for example). Because each of Mordue et al’247 and Cooper’074 would require some type of material for the construction of the disclosed couplings as well as some connection means to be employed in the proximal ends of the couplings, motivation to employ commonly known connections and materials, as taught by Howie et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

The admitted prior art of the instant disclosure, at paragraph [0053] for example, teaches that counterweights were known to be employed in couplings for use in rotary degassers in order to improve performance. Because improved performance would also be desirable in the couplings of each of Mordue et al’247 and Cooper’074, motivation to include a counterweight as taught by the admitted prior art of the instant disclosure would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments filed on 5/21/2007 have been fully considered but they are not persuasive. Applicant's argument that the '105 application does not show or suggest a bore having an end distal the opening and an end proximal the opening, wherein distal end is tapered and not threaded is not persuasive because as stated above, claims 16-20 of the '105 application disclose a coupling including a non-threaded end made of steel.

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Applicant further argues that none of the cited prior art references applied above recite a bore having an end distal the opening and an end proximal the opening, wherein distal end is tapered and not threaded. This is not persuasive because as stated in the above rejections, Mordue'467 teaches a rotary degasser including a coupling (44) with proximal (54) and distal (56) ends where the distal end is tapered and not threaded, Eckledafer'652 teaches a coupling (3) with proximal and distal ends where the distal end is tapered and not threaded, Winberg et al teaches a coupling (C) with proximal (76) and distal (32) ends where the distal end is tapered and not threaded, each of Mars et al and Sparling teaches a coupling (30 in Mars et al, figures 1-6 of Sparling) with proximal and distal ends where the distal end is tapered and not threaded, and . Mordue et al'247 teaches a rotary degasser (1 in Figures 1 and 2) including a coupling (21) with a proximal and non-threaded, tapered distal end. As stated in the above rejections, the bore shape has not yet been shown to impart any new or unexpected result, and it has been well settled that where no new or unexpected result is shown to arise therefrom, motivation to alter the shape of a component without materially altering the function of the component would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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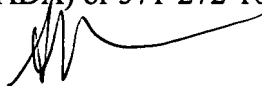
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Scott Kastler
Primary Examiner
Art Unit 1742

sk